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**Learning disability programs of the North Carolina Community
College System**

Robinson, James Richard, Ed.D.

The University of North Carolina at Greensboro, 1989

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LEARNING DISABILITY PROGRAMS OF THE
NORTH CAROLINA COMMUNITY COLLEGE
SYSTEM


by

James R. Robinson

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
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of the Requirements for the Degree
Doctor of Education

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Approved by


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APPROVAL PAGE

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This study assessed how the North Carolina Community College System (N.C.C.C.S.) was serving documented learning disabled (LD) students and provided recommendations for additional delivery of services.

The assessment included: (1) the statutory and judicial standards for compliance with Section 504 of the Rehabilitation Act of 1973, (2) the current practices of the N.C.C.C.S. in regard to compliance with Section 504, and (3) recommendations for meeting the legal requirements and the spirit of Section 504.

Section 504 and relevant court decisions were vague regarding a method of providing services for the LD student's nondiscriminatory education. The N.C.C.C.S. has established some programs for its students with documented learning disabilities and appeared to meet a minimum standard of compliance with the guidelines of the law. A model program for delivering comprehensive services to students with documented learning disabilities was developed in this study.

A system-wide upgrading of services would require the state's General Assembly to pass legislature to incorporate a comprehensive LD program into the North Carolina Administrative Code. Financial support from the State and a commitment by the N.C.C.C.S. General Administration could change the system's

minimal LD programs to one of comprehensive services.

Suggestions for further research included:

- (1) An annual review of court decisions regarding Section 504 and its implications for post-secondary education should be conducted to keep service delivery current,
- (2) There are a variety of handicapping conditions in addition to learning disabilities which should be researched for post-secondary institutions' compliance with Section 504,
- (3) Research should be conducted for institutions not operating under an open admissions system,
- (4) Post-secondary LD programs have not been in existence long enough to conduct valid longitudinal student-success research. This is an area for future study.

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The writer dedicates this dissertation to the people most responsible for its completion -- post-secondary students with learning disabilities. It is the writer's sincere hope that this dissertation will provide guidance in giving these people the advantages they deserve.

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CHAPTER ONE

Introduction

In 1973, Congress enacted Section 504 of the Rehabilitation Act, which states:

persons who are handicapped, yet otherwise qualified, cannot, solely by reason of their handicap, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from the United States Federal Government (Rehabilitation Act of 1973 Section 794, 1982, p. 30936).

In Section 504 regulation, the United States Department of Education identifies a handicapped person as anyone with a physical or mental disability that substantially limits one or more of such major life activities as walking, seeing, hearing, speaking, working, or learning (HEW, 1978).

In 1975 the Education For All Handicapped Children Act (PL 94-142) was established. This resulted in increased numbers of handicapped students graduating from secondary schools. According to the Higher Education Research Institute's national norms of 1978 to 1985 (cited in Rothstein, 1986), an increase from 2.7% to 7.7% occurred in college freshmen with certified disabilities.

The learning disabled (LD) are often hesitant to apply to post-secondary institutions (Mangrum & Strichart, 1988:

Evangelauf, 1989), yet they also should have access to the career preparation which post-secondary education offers. The community college is often perceived as less threatening than the four year institution, and, therefore, is in an ideal position to recruit students from the LD population.

The North Carolina Community College System (N.C.C.C.S.) is made up of 58 community and technical colleges. Each is a state-funded institution of higher education. All receive federal money through student financial aid, and many operate special programs through federal grants (North Carolina Administrative Code, 1976). According to Mangrum and Strichart (1988), the majority of the LD students who were attending post-secondary institutions in the United States in 1985 were attending two-year colleges.

According to Section 504, an institution receiving federal financial assistance may not:

1. limit the number of handicapped students admitted.
2. impose admissions tests or criteria that inadequately or inappropriately assess the academic potential or level of blind, deaf, or otherwise disabled applicants because adequate provisions were not made to assist them.
3. make pre-admission inquiries as to whether or not an applicant is disabled (HEW, 1978, p. 2).

Alteration of academic standards directly relating to licensure requirements are prohibited. Some alterations which are permissible include the following:

1. an extension of time limitations for degree attainment.
2. modification of teaching methods and examinations to meet

the needs of disabled students.

3. assurance of the availability of appropriate learning aids, such as audio cassettes, notetakers, large print books (HEW, 1978, p. 5).

Schools are not required to provide elevators, rails, lifts and other devices to remove all physical barriers from an entire campus. Instead, the school is required to provide access to each program by locating these in barrier-free areas when handicapped students are enrolled (HEW, 1978, p. 4).

For the purposes of this study, the only handicapping condition examined was learning disability. A learning disability is a handicapping condition, certified by either public or private psycho-educational assessment and falling within North Carolina's Rules Governing Programs and Services for Children with Special Needs, which defines a specific learning disability as:

an inclusive term used to denote various processing disorders presumed to be intrinsic to an individual (e.g. acquisition, organization, retrieval, or expression of information, effective problem solving behaviors). For the purpose of special education services a student classified as learning disabled is one who after receiving instructional intervention in the regular education setting has a substantial discrepancy between ability and achievement. The disability is manifested by substantial difficulties in the acquisition and use of skills in listening comprehension, oral expression, written expression, reading and/or mathematics. A learning disability may occur concomittantly with, but is not the primary result of other handicapping conditions and/or environmental, cultural, and/or economic influences (North Carolina Department of Public Instruction, 1985, p. 2).

Section 504 specifically recognizes learning disability as a

handicap; nevertheless, there are problems encountered in determining whether or not a person is actually learning disabled, who is responsible for assessing the disability, who pays for the assessment, and how much advance notice an institution must have before it can be accused of discriminating against a person with a learning disability.

Because a psychological evaluation is required as part of an assessment to determine specific learning disabilities, a psychologist, educational diagnostician and at times medical personnel are involved in the evaluation. This process is expensive, yet, it is required under provisions of PL 94-142 in the public schools when school-aged children are referred for assessment. As public schools implement Section 504, the number of individuals who are identified as learning disabled increases (Rothstein, 1986). This may assist higher education institutions in identifying students who require special consideration when they apply for admission. However, there remain a great many students who are not identified as learning disabled before they matriculate.

Another problem arises when the institution has taken an adverse action against the student, for example, academic probation or admissions denial, and the institution is not aware that a student was identified as learning disabled prior to his/her enrollment. This point was raised by Salvador v. Bell (N.D. Ill. 1985 aff'd 7th Cir. 1986). In this case, Arsenio Salvador claimed that he had been discriminated against by Roosevelt University

because the school failed to modify his academic program. This omission resulted in his failure to secure the Master's Degree he had been pursuing. The court did not find the university out of compliance with Section 504, because the university did not know Salvador's learning disability existed prior to his litigation.

Learning disabled students are considered handicapped and, therefore, protected by Section 504; however, it is the responsibility of the student to inform the higher education institution of this condition. Otherwise, the college or university personnel have no idea of any special responsibilities which they might have for that individual and, therefore, have no legal obligation to the individual for special consideration.

It is the mission of the N.C.C.C.S. to provide the adults of North Carolina effective and convenient educational opportunities consistent with identified student and community needs. These opportunities are to be accessible to all adults regardless of age, sex, socio-economic status, ethnic origin, race, religion or handicap. Educational and training programs were designed to enhance the personal, social, and economic potential of the individual and to produce measurable benefits to the state. The system can fulfill this mission by providing, among other things, counseling, career guidance, job placement services, and other programs essential to developing the potential of individual students (North Carolina Department of Community College, 1987).

The N.C.C.C.S. further assumes a responsibility to serve the underserved through these goals:

1. to increase availability and accessibility of system offerings by being more consumer-oriented in scheduling,
2. by insuring provision of student services such as transportation, child care and related services and orientation of students and their families,
3. by providing financial assistance,
4. by offering a wide range of courses at satellite campuses,
5. by ensuring that assessment and enrollment procedures facilitate student progress,
6. to provide remedial instruction, counseling, assessment, placement and other support services which will ensure that the open door of admissions does not become a revolving door (North Carolina Department of Community Colleges, 1987, pp. 2-3).

Statement of the Problem

The basic problem which this study addressed was how well the N.C.C.C.S. pursues its mission with documented LD students. The problem was addressed by a three-fold assessment which included: (1) statutory and legal standards for compliance with Section 504 of the Rehabilitation Act of 1973, (2) the current practices in regard to compliance with Section 504 of the Rehabilitation Act of 1973, and (3) the recommendations for meeting the legal requirements and the spirit of Section 504 of the Rehabilitation Act of 1973.

Purpose

The N.C.C.C.S. is comprised of 58 colleges. To be eligible to

receive any form of federal financial assistance, each institution in this network is required, under Section 504 of the Rehabilitation Act of 1973, to provide specific services to guarantee appropriate education to the student with documented learning disabilities. The purpose of this study was to assess the current status of LD programs in the 58 institutions of the N.C.C.C.S. It was assumed that students with learning disabilities, both documented and undocumented, are enrolled on each campus of the N.C.C.C.S.

Research Questions

1. What special services does Section 504 of the Rehabilitation Act of 1973 require colleges to provide to identified learning disabled students?
2. Are personnel of the N.C.C.C.S. aware of any students enrolled on their campus who have documented learning disabilities?
3. Do institutions of the N.C.C.C.S. receive any form of federal financial assistance other than federal student financial aid?
4. What special services do the N.C.C.C.S. institutions provide to students with documented learning disabilities?
5. Do the special services provided by the N.C.C.C.S. to its students with documented learning disabilities meet a minimum standard of compliance with Section 504 of the Rehabilitation Act of 1973?
6. What modifications need to be made in the N.C.C.C.S. programs for its students with documented learning disabilities?

Definition of Terms

For the purposes of this study, the following terms are defined:

1. Auxiliary Services - services outlined in a student's Individual Educational Plan (IEP), which are in addition to the standard services provided to non-handicapped

students. These services are provided in an effort to create the least restrictive, yet most appropriate educational environment for the student with a documented learning disability.

2. Community College - any one of the two-year, higher education institutions which offer an associate degree as the terminal degree.
3. Special Programs - An individualized, higher education program provided to students having a documented learning disability, as outlined in an IEP.

Significance of the Study

Although Section 504 of the Rehabilitation Act of 1973 has been in existence for over 15 years and much has been done in public educational settings which receive federal money, higher education has been slow to comply fully with the regulations (Vogel, 1982; Cordoni, 1982).

Many post-secondary education institutions operate using some federal money, e.g., federal student financial aid, which obligates these institutions to comply with the regulations of Section 504. This study assesses what is currently being done by the N.C.C.C.S. to meet the requirements of Section 504 and makes program recommendations for the effective education of LD students.

L.D. students are of average to above average intelligence, who with appropriate educational opportunities, can contribute significantly to our society. The N.C.C.C.S. has the opportunity to provide consistent, comprehensive programs which will assist the LD population of North Carolina to reach its full potential, educationally and economically.

Limitations

1. The study does not address the political climate of the North Carolina Community College System.
2. Survey data do not include the richness of more qualitative open-ended interviews of each 504 Officer in the North Carolina Community College System.

Delimitations

1. Students' opinions are not surveyed.
2. Results of this study are not generalizable outside of the North Carolina Community College System.
3. Results of this study are applicable only to the documented learning disability and not other areas of handicap covered by Section 504 of the Rehabilitation Act.

Organization of the Study

Chapter Two is a review of literature. It has three parts. The first part focuses on requirements of Section 504 of the Rehabilitation Act of 1973, as they pertain to the learning disabled student in higher education. The second part of the review of literature addresses the purpose of the N.C.C.C.S. and the third part reviews special programs for students with documented learning disabilities provided by two-year colleges throughout the United States.

Chapter Three describes the methodology employed in the study. Multiple data sources were used which combined (1) a legal analysis of Section 504 of the Rehabilitation Act of 1973 and relevant court decisions (2) an analysis of policies, procedures and

reports of the N.C.C.C.S. to identify special services available to students with documented learning disabilities (3) a survey conducted with the 504 Officer of each individual institution of the N.C.C.C.S. to identify special programs for students with documented learning disabilities and (4) an interview with the 504 Officer of the N.C.C.C.S. Administrative Office in Raleigh.

Chapter Four describes the findings of the legal analysis of Section 504 of the Rehabilitation Act of 1973 and relevant court decisions, the survey, the interview, and the analysis of the N.C.C.C.S. policies, procedures and reports which pertain to delivery of services to students with documented learning disabilities.

Chapter Five presents a summary of the study and recommendations to assist institutions to comply with the requirements of Section 504 of the Rehabilitation Act of 1973. A post-secondary model for a learning disability program is included.

CHAPTER TWO

Review of Literature

The review of literature focuses on the requirements of Section 504 of the Rehabilitation Act of 1973, as they pertain to post-secondary students with documented learning disabilities, the legal implications of these requirements, the special programs for students with documented learning disabilities provided by two-year colleges throughout the United States, and the purpose of the North Carolina Community College System (N.C.C.C.S.).

According to Putnam (1984), educational programs for individuals with learning disabilities (LD) have traditionally focused on students in elementary schools. The emphasis has spread to the secondary school level; however, post-secondary institutions appear slow in meeting minimum standards of compliance with Section 504 of the Rehabilitation Act of 1973 (Cordoni, 1982).

Many persons with learning disabilities entered post-secondary institutions with open-door admission or were accepted to universities only to find that as a result of their learning disability and the academic demands of college courses, they required assistance and modifications which were unavailable (Vogel, 1982). Because of the discrepancy between the standards of the programs and the students' abilities, many students

experienced academic failure. As a result, significant numbers of these students dropped out of college or were academically suspended (Lerner, 1989).

Persons with learning disabilities are less likely to pursue post-secondary education than nonhandicapped students (Evangelauf, 1989). Evangelauf (1989) reported that about 56% of all youth sought some type of post-secondary training, however, only about 15% of all handicapped students continued their education beyond high school. Evangelauf (1989) warned that handicapped persons not attending post-secondary education may encounter problems making meaningful connections in the work force or with independent living.

The 1970's saw public education responding to the special needs of students with learning disabilities in an effort to comply with the Education for all Handicapped Children Act (PL 94-142). The 1980's have produced a similar thrust, however, the focus is on higher education and its efforts at meeting minimum standards of non-discrimination against a particular group identified as handicapped in Section 504 of the Rehabilitation Act, the learning disabled (LD). Vogel (1982) attributed the growing response of colleges and universities to two powerful pressures: (a) the population of LD students, parents of LD students, LD adults and professionals, and (b) passage of the regulations enforcing Section 504 of the Rehabilitation Act of 1973.

Lerner (1989) reported that the increase in the number of adults with documented learning disabilities has brought attention

to the need for transition programs for the LD adolescents maturing into adulthood. Lerner (1989) suggested a transition plan which included: career education, vocational training, and life skills programs. One such transition institution is the community college system, which espouses mission statements aimed at providing education and training opportunities which contribute to the economic growth and development of the state and its citizenry.

Section 504 and Legal Implications

Section 504 of the Rehabilitation Act was enacted by Congress in 1973 and states:

no otherwise qualified handicapped individual shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance (Rehabilitation Act of 1973, Section 794, 1982, p. 30936).).

Most colleges and universities receive federal money through student financial assistance (O'Brien & Ross, 1981), the Job Training and Partnership Act (JTPA) and/or the Vocational Rehabilitation Act. Therefore, they fall under the standards set forth by Section 504.

Although it is difficult to obtain precise statistics on the number of handicapped persons on American campuses (Rothstein, 1986), statistics have shown a substantial increase in the number of learning disabled students graduating from high school (Lopez & Clyde-Snyder, 1983). These students face limited employment opportunities with an unemployment rate among the handicapped

estimated to be as high as 80% (Mick, 1985). There are at least 16 million adults with learning disabilities who may be potential college students (Fielding & Moss, 1980). Because of the legal rights afforded the handicapped, increasing numbers of institutions are initiating support services for this population (Mick, 1985).

Although Section 504 of the Rehabilitation Act was passed in 1973, the then Department of Health, Education and Welfare (HEW) did not issue model minimum regulations until 1978 (Rothstein, 1986). These regulations mandated that self-evaluations of compliance be conducted within the year. The evaluations revealed that most campuses had barriers in their admissions and recruitment practices, as well as in their programs and delivery of services (Rothstein 1986). However, few post-secondary learning disability programs were developed between 1978 and 1981 (Cordoni, 1982). According to Cordoni (1982) a 1981 list compiled by the Association for Children With Learning Disabilities included only 193 colleges and universities that accepted students with documented learning disabilities.

Putnam (1984) suggested four major reasons for a shortage of post-secondary programs for the learning disabled: (a) general costs, (b) student perceptions that college programs are not essential for employment, (c) a traditional concern for academic success, and (d) lack of awareness of the presence of LD students and their special needs by college program personnel. Another possible reason for the slow development of LD programs on post-

secondary campuses may be a lack of guidance for implementing Section 504, as well as, lack of research findings on college LD students (Cordoni, 1982). Putnam (1984) further suggested that attitudes on campuses were a major problem with Section 504 implementation in higher education. Although the purpose of community colleges is to provide for the educational needs of the local population, traditional academic attitudes prevail. Instructors are often unable or unwilling to acknowledge students' learning disabilities and believe that these students are out of place in the college classroom. They are reluctant to modify their teaching methods and are satisfied to teach content, not address learning problems. Many instructors are unaware of the process for identifying LD students and of the many alterations to teaching methodology which would enable LD students to learn more easily (Putnam, 1984).

Persons with learning disabilities are of average to above average intelligence, yet for some inexplicable reason, find it difficult to develop reading, writing or math skills beyond a sixth grade level. The legislation of the Education for all Handicapped Children Act (PL 94-142) guaranteed handicapped persons, up to 21 years of age, the right to a free, most appropriate and least restrictive education. Learning disabled students, despite their severe academic deficiencies in basic academic skills, are learning. In many instances, through the use of auxiliary aids, such as books on tape, taped lectures, note takers and untimed tests. By using these auxiliary aids LD students are able to perform as well or

better than their non-handicapped classmates (Lopez & Clyde-Snyder, 1983). These students, with or without the assistance of educators, have learned to compensate for their disability and are making progress toward their goals.

Although Section 504 makes direct reference to learning disabilities as a handicapping condition, there are problems in determining whether a person is learning disabled, who is responsible for conducting the assessment and at what point an institution must be aware of the presence of a learning disability before it can be held liable for discrimination (Rothstein, 1986).

Rothstein (1986) concluded that evaluations conducted as part of a public school identification process or by qualified professionals should provide post-secondary institutions with the necessary documentation to indicate the existence of a handicap. This should set the stage for providing nondiscriminatory treatment and appropriate accommodations. There is, however, no responsibility placed on the public school to provide that information to post-secondary institutions. In fact, doing so is prohibited, without the written consent of the student or if the student is a minor, the written consent of his/her parent.

Salvador v. Bell (1986) clarified the institution's responsibility regarding the provision of special services to students when the student has failed to inform the institution of the existence of their handicapping condition. Salvador charged that Roosevelt University discriminated against him by not providing the necessary modifications in his educational program

to enable him to obtain a Master's Degree. The court dismissed the complaint, because it was brought against the Secretary of Education, rather than the University. The Letter of Findings of the Department of Education Regional Office for Civil Rights did, however, conclude that no discrimination had taken place as Roosevelt University was not aware of Salvador's learning disability and his need for special modifications (Rothstein, 1986).

There is no legal precedent that requires post-secondary institutions to inquire into the existence of an applicant's handicapping condition, or to conduct assessments for the purpose of identifying handicapping conditions. It clearly appears to be the responsibility of the student to seek documentation of his/her handicap, bear the expense of such an assessment, and make the post-secondary institution aware of this documentation (Rothstein, 1986).

According to Ballard (1977), the five major components of PL 94-142 included the right to (a) a free, appropriate education, (b) a nondiscriminatory evaluation, (c) procedural due process, (d) the least restrictive placement and (e) an individualized educational program (IEP). The Rehabilitation Act of 1973 is more general in nature and serves only one primary purpose, to prohibit discrimination against the handicapped. According to Putnam (1984), this legislation was comprehensive enough to prohibit colleges and universities from discriminating in the areas of (a) recruitment, (b) testing, (c) admissions, (d) academic adjustments, (e) auxiliary aids and (f) cost.

Recruitment is the first actual contact between an institution and the student (Mangrum & Strichart, 1988). Hanson (1979) urged college administrators to ensure that their recruitment information includes a statement of compliance with Section 504 requirements. Accessibility of the recruitment site should be considered, and the portrayal of special programs and services of the institution should be accurate. Within the last decade, American colleges have sometimes actively recruited handicapped students to forestall charges of noncompliance with 504.

Admission of a student with a learning disability revolves around two major questions: (a) what is the learning disability and (b) how do the admissions personnel determine if the individual is learning disabled. A federal definition exists which outlines what comprises a learning disability. However, most states have modified that definition, resulting in even further confusion for anyone trying to apply the definition (Putnam, 1984). Even when the student is applying to an institution which practices open door admission, the determination of the existence of a learning disability can be problematic since post-secondary institutions are not required to provide educational screening or a psycho-educational evaluation for the purpose of documenting a student's learning disability. The high cost of providing such screening or diagnostic services may be one factor which has made post-secondary institutions reluctant to voluntarily add this component to their admission procedures.

According to Hudgins and Vacca (1985), the courts have

devised a three-pronged test to assess Section 504 cases. The following questions are addressed: (1) Is the plaintiff a handicapped person under the law? (2) Does the activity involved receive federal financial assistance? (3) Is the plaintiff excluded from that activity solely because of his/her handicap?

Southeastern Community College v. Davis (1979) helped define the three-pronged test when the United States Supreme Court upheld the denial of admission of a prospective nursing student to Southeastern Community College. The Court found that the student could not participate in the nursing program without posing a serious threat to the safety of patients during the clinical phase of her training unless the program requirements were substantially lowered. The Court's decision was that program requirements or standards not be lowered or substantially modified to accommodate an applicant's disability (Hudgins & Vacca, 1985). The court noted that failure of an institution to implement some reasonable modifications might result in discrimination; in the case of Davis, however, patient safety was a major concern which could not be compromised (Rothstein, 1986).

Once admissions standards have been established which do not discriminate against the "otherwise qualified" learning disabled applicant, the post-secondary institution must determine what types of special services and/or accommodations should be provided for the admitted LD student. Unlike PL 94-142, which mandates a program of special education and related services for the handicapped students in public education, Section 504 only

requires that reasonable accommodation be made (Rothstein, 1986). Therefore, the LD student who has been receiving the services provided in public education may find a lack of assistance on a college campus, even when that campus is providing special accommodations.

Making changes and adjustments to new situations is difficult for LD students, therefore, without the services of a comprehensive LD program, students may experience significant problems in the transition from the high school resource room to college (Dalke & Schmitt, 1987). Factors that make the LD student's transition from high school to college difficult, include the following: a decrease in teacher-student contact, an increase in academic competition, and a change in the LD student's personal support network (Dalke & Schmitt, 1987).

Transition of an LD student from secondary to post-secondary education settings can be eased by: (a) counseling, tutoring and support services to help the student adapt to existing institutional standards (Lerner, 1989), (b) an effort on the part of the institution to adapt its basic teaching and program requirements to meet the learning style of the LD student, and (c) provision of classes geared toward remediating basic reading, writing and math skills, including learning laboratories and basic skills centers. When these services and provisions are made, LD students' success in college is comparable to other students of average ability (Sedita, 1980).

Michael (1987) suggested a comprehensive list of support

services and program modifications for LD students which post-secondary institutions may wish to consider. These services included counseling, tutorial assistance and auxiliary aids (see Appendix A). Providing these services enhances students' potential for success (Michael, 1987).

Rothstein (1986) reported that the language of Section 504 was quite clear with respect to accommodations made in testing. Some accommodations are necessary, except when the examination requires a particular skill which happens to be the factor being measured. Rothstein believed that test modifications were inexpensive and, therefore, a measure which could be readily endorsed by post-secondary institutions.

Rothstein (1986) also suggested adjustments of degree requirements, such as an extension of time limitations on coursework and course substitutions.

Vogel and Sattler (1981) suggested 12 methods for modifying evaluation procedures for LD students. These include:

1. Allowing for untimed tests
2. Allowing a reader for students in objective exams
3. Providing essay instead of objective exam
4. Allowing students to take an exam in a separate room with a proctor
5. Allowing for oral, taped, or typed instead of written exam
6. Allowing students to clarify questions and rephrase them in their own words as a comprehensive check before answering exam question
7. Analyzing the process as well as final solution

- (as in math problems)
8. Allowing alternative methods of demonstrating mastery of course objectives
 9. Allowing students to use a multiplication table, simple calculator, and/or secretary's desk reference in examinations
 10. Avoiding double negatives, unduly complex sentence structure, and questions embedded within a question in composing examination questions
 11. Providing adequate scratch paper and lined paper to aid those students with overly large handwriting and/or poor handwriting
 12. Providing an alternative to computer-scored answer sheets (Vogel & Sattler, 1981, p. 527).

Since there are myriad ways in which learning disabilities are manifested, determining the most appropriate modification or auxiliary aid is done on a case-by-case analysis. There is some uncertainty about who is responsible for the cost of the auxiliary aid. While current literature indicates that it is a shared responsibility of institutions and individual LD students, court cases and federal compliance guidelines will, in all likelihood, shift the majority of the burden to the educational institutions (Rothstein, 1986).

In the United States Supreme Court case of the University of Texas v. Camenisch (1981), a deaf student with demonstrated financial need sought payment for an interpreter from the University. The case would have set a precedent in responsibility of auxiliary aids costs; it was, however, remanded to a lower court on a procedural basis. The U.S. Supreme Court did not believe that the case was strong enough to warrant establishing a precedent

and referred it back to the Texas Supreme Court. State courts have held that state vocational rehabilitation agencies are responsible for providing financial support to handicapped students, yet it remains unclear who is responsible if the student does not qualify for vocational rehabilitation services (Rothstein, 1986).

Rothstein (1986) explained that eligibility for vocational rehabilitation services is based upon limited employability. This can be a broad interpretation, and may not include providing services for students' post-secondary education. Additionally, vocational rehabilitation programs operate on a priority basis.

Mangrum and Strichart (1988) conducted a survey of the State Commission on Higher Education and the State Department of Post-Secondary Education in each state. State personnel provided the researchers with existing or pending legislation affecting the LD college student. As of March, 1987, four states had enacted legislation governing the admission of and delivery of special services to the LD college student.

California led the way in 1977, by legislating a bill to ensure LD students a fair opportunity to participate in the community colleges of California. Support services such as special orientation and registration assistance, assessment, special education materials, and readers were provided to the LD student at no cost. Assessments were conducted by credentialed professionals, and Individual Educational Plans (IEP) were written to create a framework of the most

appropriate service delivery. The IEP's included: the academic and career assessment tools used; a description of the student's courses, programs, or activities; recommendations for the use of appropriate instructional materials and equipment; and evidence of measurable improvement at the conclusion of each semester in which the student is enrolled.

In 1984 Connecticut's state legislature enacted similar regulations for delivery of services to the LD student in a number of its community colleges (Mangrum & Strichart, 1988).

In 1985 New Jersey adopted the Higher Education Services for Visually Impaired, Auditorily Impaired and Learning Disabled Students Act. This particular legislation applied to public and independent institutions of higher education throughout New Jersey. The act provided for special program modifications, auxilliary aids, and money to increase staff awareness (Mangrum & Strichart, 1988).

Massachusetts waived its laws requiring LD students to take a standardized college placement test (e.g. SAT, ACT) as part of the process of admissions. This 1983 revision of its General Laws also caused the Massachusetts Board of Regents to re-examine its foreign language requirements for admissions. As more LD students enroll in colleges and challenge the adequacy of the collegiate programs, it is likely that more states will initiate specific programs for Learning Disabled students (Mangrum and Strichart, 1988).

Summary Although educational programs for students with

documented learning disabilities have typically focused on public education, the emphasis has slowly spread to post-secondary institutions (Putnam, 1984; Cordoni, 1982). This is attributed to pressures placed on colleges and universities by LD students and their supporters and passage of the regulations enforcing Section 504 of the Rehabilitation Act of 1973 (Vogel, 1982).

Some reasons for the shortage of post-secondary programs for the LD student include: cost, student perceptions that college is not essential for employment, students' fear of the rigors of college, a lack of awareness of the LD population and their needs by college program personnel (Putnam, 1984), and a lack of established court precedents to guide the implementation of Section 504 (Cordoni, 1982).

The Rehabilitation Act of 1973 is general, serving one primary purpose, to prohibit discrimination against the handicapped in the areas of recruitment, testing, admissions, academic adjustments, auxilliary aids and cost. The General Provisions of Section 504 defined handicapped to include specific learning disabilities. Before a post-secondary institution can be held liable for discriminating against an LD student, however, it is the responsibility of the student to make the institution aware of the presence of the learning disability. In addition, LD students must be "otherwise qualified" for participation in the programs of the post-secondary institution before the regulations of Section 504 will apply to them. Once admitted, Section 504 requires reasonable accommodations be made for the LD student, including:

auxiliary aides and minor adjustments in degree requirements, testing and coursework.

By 1988 four states had enacted legislation to ensure LD students a fair opportunity to participate in post-secondary education (Mangrum & Strichart, 1988). Even so, each LD student's case should be reviewed on an individual basis to determine what is most appropriate to meet the needs of the student (Rothstein, 1986).

LD Program Models

There are some model programs for assisting the LD college student. There does not appear, however, to be a requirement in the federal regulations or in current case law that post-secondary institutions provide such a program, and if one is available, it does not have to be provided free of charge.

Post-secondary institutions develop instructional models that complement and uphold their standards (Mick, 1985). To develop a program for LD students, institutions can review models already in practice, utilizing the features from each which best fit the particular needs of any given institution and its population of LD students.

According to Mick (1985), service delivery models for LD programs in post-secondary institutions have not been in existence long enough to supply longitudinal data to measure their effectiveness. Although the models are not entirely unique to one another, Mick has identified six which appear to be relatively distinct.

The Tutorial Model is not a new concept in education circles. Tutors range in experience from volunteers to those holding degrees of specialization in learning disabilities. Tutorial assistance is provided to students who seek the service or are referred by an instructor. The cost of this service is often covered by the institution, but may be the responsibility of the student. This model offers academic assistance; however, it is dependent upon the expertise of the tutor, and only applies to the subject area for which the student was referred (Mick, 1985). This model does not respond to the LD student's need for program modification or use of auxiliary aids. The model does not speak to the problems associated with identifying LD students or evaluating their progress.

The Compensatory Strategies model is frequently used in public education. Mick (1985) identified the following services as being offered to LD college students in this model:

(a) permission to tape lectures, (b) permission to use a reader, (c) extended course time, (d) untimed tests, (e) taking examinations by means other than the written word, (f) using taped textbooks ("Talking Books"), (g) permitting a classmate to take notes for the LD student to copy later, (h) using calculators or computers, (i) enrolling in school part-time, or (j) taking reduced class loads (p. 464).

Although this model addresses the use of auxiliary aids and program modifications, there remains the problem of identifying the LD student. It also appears unclear whether a student receives all or part of these services and fails to

specify how the prescription of services is done. The model does not offer a method of evaluating the progress of the LD student.

The Adelphi Model focuses on both educational and social/personal development (Barbaro, 1982). Independent living skills are the primary objective of this program (Barbaro, 1982). According to Barbaro (1982), this program admits LD students during the summer. The students take a comprehensive psycho-educational assessment, enroll in a study skills seminar, and are encouraged to enroll in one to three credits of college courses. These activities are designed to give the students self-confidence for the fall term. Students are assigned to an advisor who assists them in selection of courses and enrollment, acting as a tutor and liaison. In addition, each student is required to engage in weekly individual and group counseling sessions (Mick, 1985). The Adelphi Model does address the use of auxiliary aides, program modifications, or evaluation of students' progress.

Lopez and Clyde-Snyder (1983) described Washington University's project HELDS (Higher Education for Learning Disabled Students) as an "academic protection" model designed to exempt LD students from academic probation, decreasing the pressures to perform at a given standard of success. The model has three objectives, which are:

- (a) to develop a program of academic support services that complements and uses already existing services on campus, (b) to raise the level of awareness of professors and to increase their knowledge about learning disabilities, (c) to design and develop

materials for professors to use in their courses that include special accommodations appropriate for LD students (Mick, 1985, p. 464).

Project HELDS also provides free tutoring to LD students needing the service. Other auxiliary services were not mentioned (Mick, 1985).

In the Linking or Bridging Model, high school students in their junior and senior years of secondary education, (including LD students) are encouraged to become concurrent students at local post-secondary institutions, enrolling in a variety of courses and participating in activities on the college campus. This model's intent is to introduce students to the college environment, develop interpersonal relationships on campus, and give students a head start on the logistics of scheduling and transportation, as well as develop study habits necessary to the successful pursuit of college academics (Bradley & Hagarty, 1982).

This model does not provide auxiliary services or modifications in programming to assist the student after enrollment in the post-secondary institution. There is no process to identify LD students. The Linking or Bridging Model does not provide a method for evaluating the academic needs or progress of the L.D. student.

The Special Courses Model provides special sections of standard courses. The idea is not to water down the content of a course, but to decrease the size of the enrollment, allowing for greater flexibility in teaching styles, including more individualized instruction (Mick, 1985). This model does not provide for the use of auxiliary aides, and does not outline a method for screening or

assessment to determine who may participate in the special courses program. The model does not include a means of assessing the progress of the LD student.

A crucial step in the successful organization and implementation of a post-secondary LD program is assigning someone the responsibility of directing the program. The LD program director should have a combination of qualifications, including: a thorough knowledge of learning disabilities, administrative experience and strong interpersonal skills (Mangrum & Strichart 1988).

A list of possible primary post-secondary LD program director's responsibilities includes:

1. Serve as an advocate for the LD program and its students.
2. Meet with the college administration to discuss program operations.
3. Inform faculty members of the services provided to LD students through the LD program.
4. Hire additional staff (which may include an assistant director, teaching staff, tutorial staff, diagnostic and counseling staff, and secretarial/support staff).
5. Management of the overall program.
6. Serve as a liaison between the post-secondary program and local public school LD programs.
7. Supervise staff members.
8. Develop and instruct workshops, seminars, and classes to teach special instructional techniques to the college faculty and staff.
9. Provide special counseling and academic advisement including career counseling.
10. Serve as the chairperson of the LD students' committees to establish individual educational plans (IEP) (Mangrum & Strichart, 1988 p. 22).

Funding for most state post-secondary institutions is generally covered by the institution's sponsor. This results in no fees charged to the LD student beyond the regular tuition and activity fees. Some private institutions charge supplemental fees to cover the expenses of their program operations (Mangrum & Strichart, 1988).

Summary The Rehabilitation Act of 1973 offered no clear-cut mandate to provide post-secondary education to the LD students in America. Until judicial precedence is set and educators reach consensus on the best methods of service delivery, post-secondary institutions must respond to LD students' needs on an individual basis (Putnam, 1984).

Numerous formal and informal models for service delivery to LD students has been presented. Some are new, others merely face lifts of traditional education methodology. What appears most evident is the eclectic manner in which concerned institutions assemble their service delivery models.

There are instances where post-secondary programs for the LD students were organized in an effort to comply with new state legislation, and instances of institutions assembling LD programs in an effort to follow their conscience or mission. No matter what the rationale for formalizing strategies to assist this segment of the handicapped population, the role of education is one of service. It may be from such beginnings that a broad segment of the LD population may grow even more productive.

Demonstrating good faith in complying with Section 504 and

state law will not necessarily preclude litigation, it should, however, decrease the amount (Rothstein, 1986). As Rothstein (1986) points out, post-secondary institutions exhibiting the qualities of creativity, flexibility and sensitivity should have no fear of the Section 504 mandates. More importantly maintaining the spirit of PL 94-142 will result in providing the LD students fair opportunities to pursue their interests, develop their talents and contribute to society as productive members.

The North Carolina Community College System

The North Carolina Community College System (N.C.C.C.S.), founded in 1963 by the North Carolina General Assembly, is made up of 58 two-year community and technical colleges. This post-secondary system is the third largest in America, with more than of 650,000 students enrolled each year (North Carolina Department of Community Colleges, 1988).

The N.C.C.C.S. offers educational and skills training programs designed to assist the adults of North Carolina obtain jobs or advance to better ones. This has been the mission of the system for over 25 years (North Carolina Administrative Code, 1976). The system is committed to adult literacy training, providing the state's employers with a well-trained work force and making college transfer programs accessible within commuting distance for the bulk of North Carolina residents (North Carolina Administrative Code, 1976).

Colleges in this system offer a variety of vocational, technical and general education programs of study, ranging in

length from one quarter to two years (North Carolina Department of Community Colleges, 1988). Certificates are awarded to graduates of short vocational/technical training programs, diplomas are awarded to graduates of vocational programs and the Associate of Applied Science degree is awarded to those completing the two-year technical level programs (North Carolina Department of Community Colleges, 1986).

Many institutions of the N.C.C.C.S. offer college transfer programs and programs leading to two-year associate degrees in arts, fine arts, or sciences (North Carolina Department of Community Colleges, 1986). The courses which comprise these programs generally parallel those required during the first two years of study at many colleges and universities (North Carolina Department of Community Colleges, 1986).

Some of the programs are designed specifically to meet the basic academic needs of adults who wish to learn reading, writing, and mathematics. These programs include the following:

Adult Basic Education (ABE) is a program of basic skills instruction for adults, 16 and older, who have not completed high school and who function at less than the eighth-grade level.

Compensatory Education (CED) is a program designed specifically for mentally retarded adults who have not received an adequate education. The program is based on meeting individual needs with a focus on developing the students ability to be as productive, employable, independent and self-sufficient as possible.

General Educational Development (GED) and Adult High School Diploma (AHSD) are programs of instruction designed to help students pass GED tests

leading to a high school diploma or to earn an adult high school diploma.

Human Resources Development (HRD) is a preemployment program of training and counseling for chronically unemployed adults. Graduates receive skills training and employment placement assistance (North Carolina Department of Community Colleges, 1988, p. 3).

In addition to the previously mentioned programs, the system offers continuing education programs. Among these are job training and retraining, literacy education and courses designed to improve one's use of leisure time. Continuing education programs are non-credit courses, often taken for life enrichment or to fulfill avocational interests, and do not lead to the traditional degree or diploma (North Carolina Department of Community Colleges, 1986).

The Community College System was established to provide educational opportunities to the people of North Carolina. Its primary role is to fill the educational opportunity gap between the high schools and the four-year colleges and the university system. Filling of this gap requires open door admissions (North Carolina Administrative Code Section 115D, 1976). The N.C.C.C.S. operates under a policy of open admissions to persons who are high school graduates or equivalent and are beyond the compulsory age of public school attendance, age 16 (North Carolina Department of Community Colleges, 1986).

Financial Aid programs and services from the Job Training Partnership Act (JTPA) are available. Both programs use federal money to provide financial assistance to qualified individuals

(North Carolina Department of Community Colleges, 1986).

The N.C.C.C.S. operates under the guidelines of the North Carolina Administrative Code. The system is led by a state-level administration under the direction of the State Board of Community Colleges. The 20-member board is appointed by the Governor and General Assembly, and is empowered to adopt and carry out all policies, regulations and standards to operate the N.C.C.C.S. including its institutions. Each local institution is governed by a local board of trustees, which appoints a college president to serve as its chief administrative officer (North Carolina Department of Community Colleges, 1986).

A review of the North Carolina Administrative Code, the rules and regulations and policies by which the N.C.C.C.S. operates, yields the following with regard to civil rights:

- (a) The State Board requires that the Department and the institutions comply with the provisions of the Civil Rights Act of 1964 and other acts banning discrimination because of race, national origin, color, religion, sex, handicap, age, or political affiliation.
- (b) Compliance Forms. State board policy requires that all institutions maintain up-to-date compliance forms for the 1964 Civil Rights Act; Section 504 of the Rehabilitation Act of 1973 and Title IX of the Education Amendments of 1972, and that a copy of each institution's current compliance form be filed with the office of the State President (Section .0701, North Carolina Administrative Code, 1976 p. 28).

The N.C.C.C.S. Affirmative Action Office assessed Section 504 compliance of the 58 institutions of that system. This assessment, conducted in the late 1970's, was implemented through a self-

evaluation of each institution by the N.C.C.C.S. Affirmative Action Office. The results of that study were compiled into an affirmative action plan, submitted to the federal affirmative action offices in Washington, DC. To date no exceptions or noncompliance writs have been set forth on that plan.

In 1988, the N.C.C.C.S. endorsed an extensive investigation of the roles, effectiveness and potential of the institutions within the system (North Carolina Department of Community Colleges, 1989). The results of that investigation called upon the N.C.C.C.S. to invest in a comprehensive program to equip its institutions to meet the demands of the future. In response, the N.C.C.C.S. General Administration adopted goals for the 1990's, including:

1. Provide every community college student access to quality teaching and academic support services
2. Provide opportunities for all adult North Carolinians to master the basic critical thinking skills demanded in a complex and competitive economy
3. Reduce the basic skills gap
4. Build strong partnerships with the public schools and the State's universities to establish a comprehensive education system in North Carolina (North Carolina Department of Community Colleges, 1989, p. 14).

Summary

Since the passage of Section 504 of the Rehabilitation Act of 1973 and later The Education for all Handicapped Children Act (PL 94-142), education for the student with documented learning disabilities has focused on the public education sector, grades kindergarten to twelve. The numbers of LD students graduating from public schools are increasing as are the numbers of LD

students enrolling in post-secondary institutions.

Section 504 safeguards the LD student against certain acts of discrimination in post-secondary institutions, yet these institutions have been provided few guidelines for their delivery of services. Without judicial consensus, post-secondary institutions have had to deal with legal compliance on an individual basis.

Three major problems encountered in providing services to the LD student include: documenting the presence of a student's learning disability, the cost of providing programs, and the pervasive negative attitudes among many LD students and post-secondary educators (Rothstein, 1986).

The N.C.C.C.S., comprised of 58 two-year colleges, is an open admissions system dedicated to providing quality education to adults in an effort to help them obtain jobs or advance to better ones. This federally assisted system is an affirmative action system, with a policy in place that prohibits discrimination of minority groups, including the handicapped. The institutions of the N.C.C.C.S. operate under the guidelines of the North Carolina Administrative Code and already provide some assistance to the LD student. The N.C.C.C.S. recently adopted a set of goals to meet the demands of the future. These goals did not, however, include the endorsement of a comprehensive LD program.

CHAPTER 3

Methodology

Introduction

To be eligible to receive any form of federal financial assistance, post-secondary institutions must comply with the mandates as outlined in Section 504 of the Rehabilitation Act of 1973. This requires post-secondary institutions to provide non-discriminatory education to students with documented learning disabilities when these students are "otherwise qualified" for admission to these institutions and their programs (Rothstein, 1986).

Multiple data sources were used to assess (1) what post-secondary institutions should do to comply with Section 504 and (2) what the current practices of the North Carolina Community College System (N.C.C.C.S.) are with regard to Section 504 compliance.

This study's methodology combined (1) a legal analysis of section 504 of the Rehabilitation Act of 1973 and relevant court decisions (2) an analysis of policies, procedures and reports of the N.C.C.C.S. to identify special services available to students with documented learning disabilities. This portion of the methodology includes a survey of the 504 Officer of each individual institution of the N.C.C.C.S. to identify special programs for the learning disabled and an interview with the 504 Officer of the N.C.C.C.S.

Administrative Office in Raleigh, North Carolina.

Legal Methodology

The data for the legal analysis of this study came from existing materials: Section 504 of the Rehabilitation Act of 1973, The Education for All Handicapped Children Act of 1975 (PL 94-142), court opinions, journal articles and books.

Statutes relevant to this study were located in the Law Library of the University of Tennessee, Knoxville. The statutes were located by using the Statutes at Large index. Court cases were located by using Corpus Juris Secundum and The Index to Legal Periodicals.

Library research to locate journal articles and books involved a search through the Education Research Information Clearinghouse (ERIC), the Reader's Guide, the computerized card catalog of the Main Library at the University of Tennessee, Knoxville and a search of the card catalog at Jackson Library at the University of North Carolina, Greensboro.

Population

The 504 Officers of the 58 institutions of the N.C.C.C.S. and the 504 Officer of the N.C.C.C.S. were the population for this study. The N.C.C.C.S. was chosen for this study because of its open-door admissions practice, its commitment to providing education services to a broad segment of the public, and its mission to prepare the public for entry into the job market or to improve their present job skills (North Carolina Department of Community Colleges, 1986).

Instrument

Development of the survey instrument (see Appendix B) was based upon an examination of the types of services offered to students with documented learning disabilities at colleges and universities outside of the N.C.C.C.S.

The survey instrument consisted of three sections, and included:

1. closed-ended questions designed to ascertain the presence of federal financial assistance, other than federal student financial aid.
2. open and closed-ended questions to determine the presence of students with documented learning disabilities on the campuses of the N.C.C.C.S.
3. open and closed-ended questions to specify the special related services provided to students with documented learning disabilities by each North Carolina Community College.

Ms. Arlene Stewart, Director of the Western Carolina University Learning Disability Project, Ms. Ann Hyde, Western Regional Supervisor of the North Carolina Public Schools Exceptional Children's Program and the researcher's dissertation committee checked the clarity of the survey questions and the face validity of the survey instrument.

Field Test

The instrument was field tested by selecting six institutions within the N.C.C.C.S. which were experienced in serving students

with documented learning disabilities. To provide geographic representation, the field test included two institutions from the eastern, central and western regions of the state. The field test generated an acceptable return rate of 100% and a quality of response necessary to pursue the larger study. The only change brought about by the field test was the inclusion of a working definition of learning disability (LD) in the cover letter (See Appendix C).

Data Collection

The surveys in both the field study and larger study were mailed to the 504 Officer at each institution. After a turn-around time of 10 days, a second survey was mailed and 10 days later a follow-up telephone call was placed to non-respondents. During this telephone call, the survey questions were read to the 504 Officer by the researcher who then recorded the answers.

To ensure respondent anonymity, the surveys were number coded. Results are reported by this institution code rather than by institution name.

Data Analysis

Findings of the legal analysis of Section 504, relevant court decisions, policies, reports and procedures of the N.C.C.C.S. are presented.

Frequency analysis was used to describe the survey results. Survey results are presented as percentages in the summary and a table displays these results in the appendix (see Appendices D and E).

Research Question 1: What special services does Section 504 of the Rehabilitation Act of 1973 require colleges to provide to students with documented learning disabilities? Question 1 is addressed through the legal and historical analysis of Section 504 and analysis of relevant court decisions.

Research Question 2: Are personnel of the N.C.C.C.S. aware of any students enrolled on their campuses who have a documented learning disability? Research question 2 is addressed through the analysis of reports of the N.C.C.C.S. and by the survey results.

Research Question 3: Do institutions of the N.C.C.C.S. receive any federal assistance other than federal student financial aid? Although the answer to question 3 would appear an obvious affirmative, it is substantiated through the results of the survey and analysis of the reports of the N.C.C.C.S.

Research Question 4: What special services do the institutions of the N.C.C.C.S. provide to students with documented learning disabilities? Question 4 is addressed through the survey results, the analysis of the policies, procedures and reports of the N.C.C.C.S., and the interview conducted with the 504 Officer of the N.C.C.C.S. General Administration in Raleigh.

Research Question 5: Do the special services provided by the N.C.C.C.S. to its students with documented learning disabilities meet a minimum standard of compliance with Section 504 of the Rehabilitation Act of 1973? Question 5 is addressed through the legal and historical analysis of Section 504, relevant court decisions, the survey results, and the analysis of the policies,

procedures and reports of the N.C.C.C.S.

Research Question 6: What modifications need to be made in the N.C.C.C.S. programs for students with documented learning disabilities? Question 6 is addressed through the legal and historical analysis of Section 504 and relevant court decisions, the survey results, and the analysis of the policies and procedures of the N.C.C.C.S.

Summary

This study is an assessment of a (1) all the legal requirements of section 504 of the Rehabilitation Act of 1973 as they pertain to post-secondary education, and (2) the current practices of the N.C.C.C.S. regarding Section 504 compliance.

The study's methodology combined a legal analysis of policies, procedures and reports of the N.C.C.C.S. to identify special services for the LD student, a survey of the 504 Officers of the N.C.C.C.S. to identify special programs for the LD student and interview with the 504 Officer of the N.C.C.C.S. General Administration.

The population for the field test was six 504 Officers representing the three geographic regions of North Carolina. The population for the larger study was the 504 Officer of each of the remaining N.C.C.C.S. institutions.

The survey instrument consisted of three sections designed to determine the presence of federal financial assistance in each institution, the presence of documented LD students at each institution and assess the special services provided to documented

LD students at each institution.

Frequency analysis was used to describe the survey results. Findings of the legal analysis of Section 504, relevant court decisions, and policies, reports and procedures of the N.C.C.C.S. were presented. The data analysis provided a combination of two or more sources for responding to each of this study's six research questions.

CHAPTER 4

Research Findings

Introduction

The first section of this chapter includes the legal analysis of Section 504 and relevant court decisions. This is to clarify what post-secondary institutions should do to comply with Section 504. The second section of this chapter summarizes the analysis of the policies, procedures and reports of the N.C.C.C.S. as they pertain to special services provided to the system's learning disabled (LD) students. The third section of this chapter presents the survey findings. These findings are discussed as percentages in a narrative format. The survey results are also presented in a table format (see Appendices D and E). A summary of an interview conducted with Roscoe Hager, N.C.C.C.S. Chief 504 Officer, is also presented in the fourth section of this chapter.

Sections two, three, and four show what the current practices of the N.C.C.C.S. are with regard to Section 504 compliance. The final section of this chapter is based on all the data collected (legal, historical, descriptive) and responds to the six research questions posed by this study.

Legal Analysis

Subpart A in the General Provisions of Section 504 of the Rehabilitation Act of 1973 defines handicapped persons as "any person who (i) has a physical or mental impairment which

substantially limits one or more major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment." Mental impairment includes "mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities."

An "otherwise qualified" handicapped person is one who meets the academic and technical standards requisite to admission or participation in an educational program or activity. In other words, an otherwise qualified handicapped student can, with the assistance of an auxiliary aid or reasonable program modification, meet the academic requirements necessary for the educational program that person is pursuing.

Subpart E of Section 504 requires that qualified handicapped persons be provided auxiliary aids, benefits, and services that are as effective as those afforded the non-handicapped. In other words, the handicapped should be provided an equal opportunity to obtain the same results as the non-handicapped. This does not, however, mean a guarantee that the handicapped will achieve the same results as non-handicapped students (Mangrum & Strichart, 1988).

With regard to post-secondary education institutions, the only purpose of Section 504 is to prohibit discrimination in the areas of recruitment, testing, admissions, academic adjustments and auxiliary aids (Putnam, 1984).

Institutions should provide a statement, during recruitment, outlining the way special services for the handicapped are

provided. Recruitment activities should be held in barrier-free areas.

Institutions requiring tests for admission must provide special testing arrangements for the handicapped and must utilize alternative admissions criteria for the handicapped when such admissions tests are discriminating to the particular nature of an individual's handicapping condition (Mangrum & Strichart, 1988). An admissions test must reflect the applicant's aptitude or achievement, not the individual's impairment. Furthermore, the test being used must show evidence of predictive validity as to the success in the student's chosen educational program (Bennett, 1984).

In order to comply with Section 504, the institution must know of the student's handicapping condition. The United States Supreme Court case of Salvador v. Bell (1985) held that an institution must know of the existence of a student's handicapping condition before discrimination can take place. This is a problem in that colleges and universities are prohibited from inquiring about the existence of handicapping conditions as part of the admission process. Should an LD student not agree to provide documentation of his/her handicap, admission may be unintentionally denied on the basis of his/her handicap. The institution may invite pre-admission disclosure of handicapping conditions, but should provide a statement that such information is used solely for the institution's voluntary efforts at remediation (Mangrum & Strichart, 1988).

The existence of a handicapping condition must be documented by a professional, and Section 504 does not mandate such an assessment to be provided or paid for by the institution. Securing this assessment is the student's responsibility (Rothstein, 1986).

Section 504 emphasizes mainstreaming students into full participation of an institution's programs and activities. In so doing, the law prohibits academic adjustments or alterations which result in weakening the curriculum. There is no obligation for the institution to waive specific requirements or courses. It does, however, require that an institution provide modifications and or auxiliary aids to ensure nondiscrimination on the basis of the student's handicap.

Auxiliary aids may include taped texts, interpreters and readers. These are for prescribed school use only and do not have to be provided for personal use. The institution does not have to provide attendants or individually prescribed devices.

In 1978 the federal district court ruled that colleges were responsible for bearing the costs of auxiliary services as outlined in Section 504. In Barnes v. Converse College (1978), the court held that Converse College would bear the cost of providing an interpreter for a hearing-impaired student (Mangrum & Strichart, 1988). Section 504 also prevents discrimination against the handicapped in the areas of housing, financial and employment assistance, and nonacademic services (i.e. physical education, counseling and special organizations).

Analysis of the Policies, Reports and Procedures of the N.C.C.C.S.

The N.C.C.C.S. operates under the North Carolina Administrative Code, the law established by the North Carolina General Assembly. The Code provides for a number of special programs to operate in each of the 58 North Carolina community colleges. These programs include: Adult Basic Education, Compensatory Education, General Education Development, and Human Resources Development. Each of these programs provides a remedial level of education.

The Code also requires each institution in the N.C.C.C.S. to provide learning laboratory programs consisting of self-instruction through programmed texts, audio-visual equipment and other self-instructional materials. A learning lab coordinator is present for the purpose of supervising learning activities in this program.

The review of policies, procedures, and records of the N.C.C.C.S. produced no specific requirements for the institutions to provide special services to students with documented learning disabilities.

Analysis of the Survey

A field test was conducted with 6 of the 58 N.C.C.C.S. 504 Officers which resulted in a 100% return rate. The results of that test did not necessitate any changes in the composition of the survey instrument, therefore, these survey results were included in the analysis of the data along with the results from the larger study. A survey was conducted with the 504 Officer in each of

the remaining 52 N.C.C.C.S. institutions. There were 35 surveys returned from the first mailing, 14 from the second, and 3 follow-up telephone calls which resulted in a 100% return rate.

The survey instrument (see Appendix B) included three sections. The first section was designed to determine the number of 504 Officers in the N.C.C.C.S. who had knowledge of their institutions' receipt of federal funding and, therefore, had a legal obligation to comply with the mandates of Section 504. This question excluded federal money in the form of financial aid to students.

A total of 82% (48) of the 58 504 Officers indicated that their institution received federal funds. Thus 18% (10) of the 504 Officers were unaware that their institutions received federal funds other than financial aid.

A report from the N.C.C.C.S. General Administration Offices in Raleigh indicated that each of its 58 institutions received federal funds during the 1987-1988 fiscal year (See Appendix F). The amounts ranged from \$57,399 to \$892,168. This confirms that each of the 58 institutions of the N.C.C.C.S. must comply with the regulations of Section 504.

The second section of the survey was designed to ascertain 504 Officers' knowledge of the presence of students with documented learning disabilities on their campuses. The responses indicated that 84% (49) of the 58 504 Officers were aware of the existence of documented LD students on their campuses. The numbers of LD students on the campuses of the

N.C.C.C.S. institutions were reported to range from 0 to 61, excluding one institution's report of more than 250. This institution explained that the inflated number was the result of totaling the number of LD students in curriculum programs as well as Adult Compensatory Education, Adult Basic Education, General Educational Development, and Human Resources Development Programs.

Of the 58 504 Officers surveyed, 84% (49) affirmed the presence of LD students on their campuses, 52% (30) had students whose learning disability had been documented through a public school evaluation, 28% (16) had students whose learning disability had been documented by an assessment conducted on their campus, 41% (24) had students whose learning disability had been documented through a privately secured psycho-educational evaluation, and 52% (30) had students whose learning disability was documented by an evaluation through the North Carolina Office of Vocational Rehabilitation.

A total of 84% (49) of the 58 institutions conduct placement tests to screen new students' levels of academic achievement. These test results are used to determine students' level of entry into academic coursework. Students not demonstrating adequate academic readiness are initially enrolled in remedial classes through the institutions' learning laboratories or referred to other special programs offering academic remediation.

Section three of the survey assessed institutions' participation in ten key areas of service delivery to students with

documented learning disabilities. All of the institutions acknowledging LD students on their campuses were participating in the free delivery of at least two of the ten services. See Appendix D for an account of the institutions' delivery of services to LD students and Appendix E for a more detailed analysis of this section of the survey data.

An open ended section in this portion of the survey was provided for respondents' comments. Only 3% (2) of the 58 504 Officers responded to this section. Each of these responses indicated the institution was providing the services to all students, not just those students with documented learning disabilities.

Interview

An interview with Roscoe Hager, the 504 Chief Officer of the N.C.C.C.S. was conducted on February 13, 1989. Hager expressed concern for the LD students of the N.C.C.C.S. and spoke of the system's effort at complying with Section 504.

In the late 1970's, to comply with the mandates of Section 504, personnel at each institution of the N.C.C.C.S. conducted a self evaluation to determine areas of noncompliance. Based upon that evaluation, the same personnel were to oversee the correction of the problems they had identified, at the institutions. The appropriate officials at the institutions filed the study and corrective action proposals with the General Administration 504 Office, where they were left on file for 3 years. No documented instances of non-compliance were filed in that initial report.

Hager's office conducts periodic audits of the institution's

compliance with Section 504 and reports the findings, which result in institutional personnel filing proposals for correcting any areas of noncompliance. To date, no documented instances of noncompliance address failure to provide services to the LD population.

Hager concluded the interview by emphasizing the learning laboratories and Human Resource Development Programs. He stated that federal vocational education money is set aside for the purpose of providing tailored remedial services to all students needing them. Institutions may choose to concentrate their efforts in specific programs, providing justification is made for doing so.

Findings

Research Question 1 What special services does Section 504 of the Rehabilitation Act of 1973 require colleges to provide to students with documented learning disabilities?

Section 504 requires colleges receiving federal funds to provide non-discriminatory education to students with documented learning disabilities as long as the students are "otherwise qualified" for admission to the institution and its programs. Court decisions have set only a few precedents concerning the application of section 504 to post-secondary institutions, including: a three-pronged test to define "otherwise qualified," use of auxiliary aids and their cost, and provision of special services and their costs.

Research Question 2 Are personnel of the N.C.C.C.S. aware of any

students enrolled on their campuses who have a documented learning disability?

The survey results indicated that 84% (49) of the 58 504 Officers know of documented LD students on their campuses. Two 504 Officers indicated that there were no LD students on their campuses. The number of LD students on N.C.C.C.S. campuses ranges from 0 to more than 250. The presence of documented LD students on these campuses is further substantiated by Roscoe Hager, 504 Chief Officer of the N.C.C.C.S.

Research Question 3 Do institutions of the N.C.C.C.S. receive any federal assistance other than federal student financial aid?

Only 82% of the survey responses affirmed institutional receipt of federal funds. A report provided by the N.C.C.C.S. General Administration confirmed that all 58 institutions received a share of over 12 million dollars in federal money during 1987-1988. The discrepancy between those two facts indicates a lack of awareness of certain 504 Officers of the specific requirements of Section 504 or of their institution's sources of funding.

Research Question 4 What special services do the institutions of the N.C.C.C.S. provide to students with documented learning disabilities?

An open-door policy of admissions, as well as policies requiring certain programs and classes for remediation, assist the LD student in obtaining the foundations of a basic education. Most of the institutions comprising the N.C.C.C.S. report the provision of two or more free support and/or auxiliary services for their LD

students. The auxiliary services provided included the following: psycho-educational assessment, tutoring, special counseling, oral and untimed test administration, notetakers, textbooks on tape, provision of typewriters and word processors, use of hand held calculators and special orientation for LD students. Personnel at two institutions indicated that there was no delivery of special services or use of auxiliary aids, but claimed that they had no LD students enrolled.

Research Question 5 Do the special services provided by the N.C.C.C.S. to its students with documented learning disabilities meet a minimum standard of compliance with Section 504 of the Rehabilitation Act of 1973?

Each of the 56 N.C.C.C.S. institutions with LD students enrolled on their campus meets the minimum standard of compliance with Section 504 regarding the student with documented learning disabilities. Two institutions offer no special programming and claim to have no LD students enrolled on their campuses. However, there appear to be no consistent, comprehensive programs in the N.C.C.C.S. which would allow LD students to reach their full educational potential. Therefore, while complying with the strictly legal intent of the law, the system appears to fall short of carrying out the spirit of the law. The law was designed to offer handicapped individuals the full opportunities to an appropriate education which would prepare them to be productive members of our society. Without the provision of services which address their unique needs, LD

students often experience frustration and academic failure, resulting in their dropping out of college or being academically suspended.

Research Question 6 What modifications need to be made in the N.C.C.C.S. programs for students with documented learning disabilities?

Adoption of a policy in the North Carolina Administrative Code by the North Carolina General Assembly could guarantee a higher standard of service delivery to LD students in all 58 institutions. Such a policy should be accompanied by an appropriation of state funding for the cost of establishing and operating a comprehensive program for LD students in each North Carolina Community College. The services provided by these programs should be directed to the documented LD student and provide a high standard of free service delivery through the following: recruitment, admissions, testing, academic adjustments, and auxiliary aids.

Summary of Research Findings

All institutions of the N.C.C.C.S. receive some form of federal funding and as such, are required to comply with the mandates of Section 504 of the Rehabilitation Act of 1973.

There is a wide range in the number of students with documented learning disabilities attending North Carolina Community Colleges. The number of special services and auxiliary aids provided by these institutions to the LD student varies at each institution. There is also a discrepancy between the goals of

the N.C.C.C.S. and their current practices as outlined in the North Carolina Administrative Code.

Section 504 and relevant court decisions are relatively vague regarding an exact method of providing services for the LD student's nondiscriminatory education. The N.C.C.C.S. falls within at least a minimum standard of compliance with the guidelines of the law; there is, however, room for improvement.

A system-wide upgrading of services would require the state's General Assembly to pass legislation to incorporate a comprehensive program of special services for LD students into the North Carolina Administrative Code.

Discussion

The 1989 report of the Commission on the Future of the North Carolina Community College System represents an educational blueprint that will allow North Carolina to compete successfully in the national economy of today and the next century (North Carolina Department of Community Colleges, 1989). One of the Commission's recommendations was that opportunities be available for all adult North Carolinians to master the basic critical thinking skills demanded in a competitive economy. Basic skills instruction is critical; yet little attention has been given to making basic skills training a priority (North Carolina Department of Community Colleges, 1989). Few basic skills faculty are trained to serve the distinctive educational needs of undereducated adults: 38 percent of the ABE faculty are trained in elementary rather than adult education, and 41 percent have not completed

college (North Carolina Department of Community Colleges, 1989).

The Commission believes that the North Carolina Community College System should cultivate quality instruction across curriculums by hiring and retaining skilled instructors who develop innovative teaching methods and curricula to serve the needs of adult learners. The system should oversee the creation and implementation of an integrated system for assessing individual students, developing academic and career plans for them, and providing them with the counseling to help them meet and expand their goals. It should address barriers to entering and staying in school (North Carolina Department of Community Colleges, 1989).

North Carolina's community colleges are at a crossroads. They have the opportunity to build a system that can prepare North Carolinians for the workplace and the economy of the future. For 25 years, community colleges have been the competitive edge for economic and educational progress. If the N.C.C.C.S. hopes to keep the edge, it must invest now in every level of academic preparation and job training (North Carolina Department of Community Colleges, 1989).

Establishing comprehensive programs for students with learning disabilities is an investment which can improve the quality of educational services provided by the N.C.C.C.S. and the quality of life for a broad segment of North Carolina's handicapped population.

According to Mangrum and Strichart (1988) the number of

programs for students with documented learning disabilities in post-secondary institutions has increased during recent years. This is encouraging. However, the estimated number of students with learning disabilities on American college campuses has increased tenfold from 1971 to 1985. This dramatic increase indicates a growing demand for colleges to meet the special needs of this segment of the college population, the student with learning disabilities.

Mangrum and Strichart (1988) recommend a comprehensive program for the LD student. This program should be separate and in addition to the services which are available to all students. Standard services are inadequate for LD students and have done little to improve the retention rates of LD students. The colleges that offer comprehensive programs have high retention rates for LD students.

Program success hinges initially upon the support of the institution's administration. Three possible ways to convince college administrators of the need for special programming for their institution's LD students include: (1) an appeal to the "social conscience" that such programs enhance the mission of the college, (2) special LD programs have demonstrated an increase in retention rates among colleges' LD student population, and (3) compliance with Section 504 of the Rehabilitation Act of 1973 will decrease the likelihood of future litigation and the subsequent danger of forfeiting federal financial support.

Based on the review of literature (which includes research

and recommendations from various experts on the needs of LD students), the survey of current practices of the N.C.C.C.S., and the requirements of Section 504 and PL 94-142, a model program is presented in Chapter 5 of this study. This model is intended to coalesce the needs of the LD population and a reasonable, comprehensive approach to meet those needs.

CHAPTER 5

Summary and LD Program Model

Introduction

This study addresses how the North Carolina Community College System (N.C.C.C.S.) is serving documented learning disabled (LD) students and provides a LD program model for additional delivery of services. The three-fold assessment includes: (1) statutory and judicial standards for compliance with Section 504 of the Rehabilitation Act of 1973, (2) the current practices in regard to compliance with Section 504 of the Rehabilitation Act of 1973, and (3) a proposed model for meeting the legal requirements of the spirit of Section 504 of the Rehabilitation Act of 1973.

Summary

The legal requirements, as set forth in Section 504 of the Rehabilitation Act of 1973, are used as the standard by which to assess services for the learning disabled student. The following research questions were addressed:

1. What special services does Section 504 of the Rehabilitation Act of 1973 require colleges to provide to identified learning disabled students?
2. Are personnel of the N.C.C.C.S. aware of any students enrolled on their campus who have documented learning disabilities?

3. Do institutions of the N.C.C.C.S. receive any form of federal financial assistance other than federal student financial aid?
4. What special services do the N.C.C.C.S. institutions provide to students with documented learning disabilities?
5. Do the special services provided by the N.C.C.C.S. to its students with documented learning disabilities meet a minimum standard of compliance with Section 504 of the Rehabilitation Act of 1973?
6. What modifications need to be made in the N.C.C.C.S. programs for its students with documented learning disabilities?

The review of literature indicates that special programs for students with documented learning disabilities initially focused on elementary school programs. Later, the focus turned toward secondary education, and more recently to post-secondary institutions.

Typically, there has been a shortage of LD programs for post-secondary students due to: cost, lack of established court decisions to guide post-secondary institutions' implementation of Section 504, LD students' perception that college is too difficult for them and not essential to job acquisition, and a lack of awareness on the part of college administrators (Cordoni, 1982; Putnam, 1984). The trend, however, has slowly begun to change as more LD students and their supporters have begun a movement to

implement the special assistance that Section 504 guarantees (Vogel, 1982).

The general provisions of Section 504 included learning disabilities in its definition of the handicapped. If an institution receives federal financial assistance and if the institution is aware of a student having a documented learning disability, it is responsible for carrying out the regulations of Section 504.

The Section 504 regulations in regard to post-secondary education are general. Their primary purpose is to prohibit discrimination against the handicapped in the areas of recruitment, testing, admissions, academic adjustments, auxiliary aids and cost.

Some LD program models have been established to assist the students with documented learning disabilities and maintain institutions' compliance with Section 504.

Mick (1985) identifies six models: The Tutorial Model provides academic assistance to LD students. The Compensatory Strategies Model offers an array of auxiliary aids and modifications to assist the LD student. The Adelphi Model which focuses on educational and social/personal development operates through an early admissions process and assigns each LD student a special counselor to act as tutor and liason. The Higher Education For Learning Disabled Students Model (HELDS) has three objectives: a support services program, inservice programs for instructional staff to raise their level of awareness regarding LD students and their needs, and a program of special materials and

accommodations. The Linking or Bridging Model is designed to ease LD students' transition from secondary to post-secondary education. The Special Courses Model provides course sections that are small in size and flexible in teaching style, including more individualized instruction.

Each model has its own merits. No one model, however, meets all of the requirements as outlined in Section 504 regulations (See Figure 1). As Mangrum and Strichart (1988) pointed out, any services tailored to meet the specific needs of the LD student can improve the student's chances for academic success; however, if services are to be useful in deterring attrition and are to have a positive influence on overall academic success of students, they must be comprehensive. A comprehensive program for students with documented learning disabilities should include recruitment, admissions and testing practices, provides appropriate program modifications and auxiliary aids, and be free to the LD student (Putnam, 1984).

The N.C.C.C.S. is comprised of 58 institutions. Their mission is to provide the adults of North Carolina quality and convenient learning opportunities consistent with identified student and community needs. These opportunities are accessible to all adults regardless of age, sex, socio-economic status, ethnic origin, race, religion, or handicap. Educational and training programs are designed to enhance the personal, social, and economic potential of the individual and to produce measurable benefits to the state. The system fulfills this mission by providing, among other things,

FIGURE 1. LD Program Models' Compliance with Section 504 Requirements

LD PROGRAM MODELS	REQUIREMENTS OF SECTION 504				
	Recruitment	Admissions	Assessment & Placement	Program Modification & Auxiliary Aids	Cost to the LD Student
Tutorial Model	NO	NO	NO	YES	May be Free
Compensatory Statagies Model	NO	NO	NO	YES	May be Free
Adelphi Model	YES	YES	YES	NO	Free
Project HELDS Model	YES	YES	NO	YES	Free
Linking/Bridging Model	YES	YES	NO	NO	Tuition Fee Charged
Proposed Model for the North Carolina Community College System	YES	YES	YES	YES	Free

counseling, career guidance, job placement services, and other programs essential to developing the potential of individual students (North Carolina Department of Community Colleges, 1987).

The N.C.C.C.S. further assumes a responsibility to serve the underserved through these goals: (1) by increasing availability and accessibility of system offerings by being more consumer-oriented in scheduling, (2) by ensuring provision of student services such as transportation, child care and related services and orientation of students and their families, (3) by providing financial assistance, (4) by offering a wide range of courses at satellite campuses, (5) by ensuring that assessment and enrollment procedures facilitate student progress, (6) by providing remedial instruction, counseling, assessment, placement, and other support services which will ensure that the open door of admissions does not become a revolving door (North Carolina Department of Community Colleges, 1987).

This study combines an assessment of the legal requirements of Section 504 of the Rehabilitation Act of 1973 as they pertain to post-secondary education and the current practices of the N.C.C.C.S. regarding Section 504 compliance.

The study's methodology includes: (1) a legal analysis of Section 504 and relevant court cases, (2) an analysis of the policies, procedures and reports of the N.C.C.C.S. to identify the special services provided to students with documented learning disabilities (3) a survey of the 504 Officers of each institution to

identify special programs for LD students, and (4) an interview with the 504 Officer of the N.C.C.C.S. General Administration.

The research findings show that all 58 institutions of the N.C.C.C.S. receive federal financial assistance and that all but two 504 Officers are aware of the presence of documented LD students on their campuses. This indicates that the N.C.C.C.S. should be responsible for following the guidelines of Section 504.

The study shows that most of the institutions of the N.C.C.C.S. were offering some auxiliary aids and program modifications; however, the vast majority of services are not comprehensive in nature. The survey indicates that 93% of the 58 institutions are using the tutorial model and the analysis of the policies governing the N.C.C.C.S. includes provisions for concurrent enrollment of high school students, much like the strategies used in the Adelphi and Linking Models.

As Mangrum and Strichart (1988) point out, there are any number of services and modifications an institution can provide, but nothing short of a comprehensive LD program will produce a measurable improvement in the academic success of the LD student. The success of a comprehensive LD program requires the acceptance of the program by administration, faculty, and support staff (Mangrum & Strichart, 1988).

While no organized programs for serving the LD population have been adopted by the N.C.C.C.S., there are indications that the community college system is committed to training special populations for the workforce.

A Proposed Model For the N.C.C.C.S.

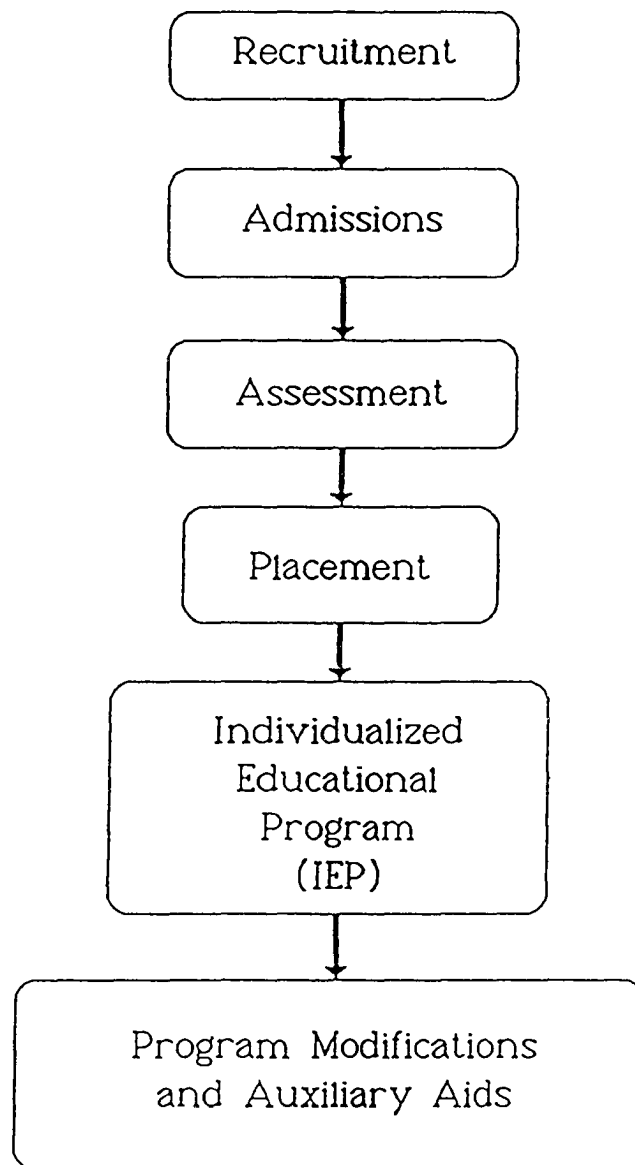
The N.C.C.C.S. offers educational programs to meet the specific basic academic needs of students who require remedial services, as well as standard college coursework at the freshman and sophomore levels. This combination of expertise, along with an open admissions policy and system-wide mission to serve the people, provides the impetus for selecting the N.C.C.C.S. as the environment for this learning disability program model.

Other advantages the N.C.C.C.S. has over many other post-secondary systems include: existing remedial staff, learning labs which offer a developmental or remedial level of instruction in college preparatory classes, typically small classes, low tuition rates, and geographic locations that are within easy commuting distance for most North Carolinians.

This model is designed to assist the student with a documented learning disability obtain a free, most appropriate, least restrictive education to promote his/her entry into the job sector. This model (See Figure 2) provides the N.C.C.C.S. with an avenue to legal compliance with Section 504, and fulfills the spirit of the Education for All Handicapped Children Act (PL 94-142).

Recruitment In the LD program model, special attention is directed toward junior high and high school students with documented learning disabilities. A recruiter, knowledgeable in the area of learning disabilities and the LD program of his/her particular community college, is assigned to familiarize these students with

FIGURE 2. Learning Disability Program Model for the N.C.C.C.S.



the program offerings available at that college. The recruiter should encourage students to make their chosen post-secondary institution aware of their documented learning disability. The student is asked to produce documentation of his/her learning disability to the college.

As in the Linking or Bridging Model (Bradley & Hagarty, 1982), and Adelphi Model (Barbaro, 1982), strong working relationships between the high school and community college are developed. Students are encouraged to tour their local community college and enroll in one or more courses as a dual or concurrent student during their senior year in high school. This practice of taking college classes while still in high school promotes familiarity of the LD student with the college environment, assisting the student in coping early with the problems which can be associated with registration, transportation and scheduling. The LD concurrent student can provide the college with the necessary documenting evidence of his/her learning disability early, allowing plenty of time to up-date any assessment results which are over three years old. Therefore, when the student is ready to begin college formally in the fall term, all the necessary documentation is in place.

Admissions The open admission policy of the N.C.C.C.S. allows all students equal opportunity to enroll in its institutions. College entrance examinations, ACT or SAT, are not required as part of the admissions process. As a result, it should be obvious that the student population of the N.C.C.C.S. is a melting pot of

different levels of academic preparedness, aptitude, interest and talents.

Assessment Of the post-secondary education LD programs reviewed, none included a method of conducting mass educational screenings of its students. Although not a requirement of Section 504, mass screenings are carried out in public education institutions as part of the mandates of PL 94-142.

In an effort to sift through the application file and provide academic advising to place new students appropriately in their initial coursework, admissions personnel often administer placement tests. These tests take place prior to registering students for courses, and typically evaluate post-secondary readiness in the areas of reading, language arts, and math. Many institutions also require a written language section in their placement tests.

When placement tests are a required component of the admissions process of all students, the institution is in an ideal position to move beyond the requirements of Section 504 and maintain the spirit of PL 94-142. Placement tests can be used as a mass educational screening instrument. This provides a built-in system for identifying students' specific academic strengths and weaknesses, and may, therefore, serve as the initial indicator of the presence of a learning disability, even when none has been previously documented. This mass screening of academic skills is much the same as that conducted in the public schools and maintains the tradition of PL 94-142.

All 58 institutions of the N.C.C.C.S. receive federal money for Adult Basic Education and Vocational Education Programs. Many of these program offerings are remedial or basic in nature. In addition, the institutions of the N.C.C.C.S. operate learning labs which offer introductory levels of reading, mathematics and language arts. Each of these classroom environments is designed to help students with academic weaknesses prepare for a successful transition into higher levels of study.

Students who do not meet a predetermined level of competency during placement examinations are advised to pursue remedial or basic studies. Upon successful completion the student can eventually enter into standard vocational, technical or general education courses. The proposed LD model for the N.C.C.C.S. relies heavily upon the screening/remedial referral concept.

Placement This LD model calls for the formulation of a committee, whose members include: the director of the LD project, learning lab staff, adult basic education staff, career development staff, and counselor staff from the Student Affairs division of the institution. Similar to the support provided to LD students through the Adelphi Model (Barbaro, 1982) and Project HELDS (Lopez & Clyde-Snyder, 1982; Mick, 1985), this committee should meet regularly to review students progress in the remedial/basic courses. When a student does not achieve desirable results in these classes, the committee refers the student for psycho-educational assessment. The purpose of this assessment is to investigate the reasons for lack of remedial

success and determine the presence of a learning disability.

Psycho-educational assessments are not the legally mandated responsibility of post-secondary institutions and were not a part of the post-secondary models reviewed. However, providing these assessments is again consistent with the spirit of PL 94-142. They do not have to be conducted by a staff psychologist. Students may be referred to a psychologist in private practice for the assessment. The students are responsible for paying for this evaluation if the institution does not provide this service. The Department of Vocational/Rehabilitation is also a source for psycho-educational assessments and can be utilized free of charge. However, assessments are generally conducted on a first-come, first-served basis and may result in a lengthy wait for services.

Regardless of where or how the psycho-educational evaluation is conducted, it can ultimately provide the committee members with the information necessary to document the presence of a learning disability. The student is included as a member of the committee during this and the remainder of their LD committee meetings.

In a series of personal communications, Arlene Stewart, Director of the Western Carolina University Learning Disability Project, provided the following list of factors that are considered at her institution when diagnosis is made as to whether a person does or does not have a learning disability.

Documentation of a learning disability requires that the

student's Full Scale I.Q. score, as measured by the Wechsler Adult Intelligence Scale Revised (WAIS-R), be equal to or greater than 81. There must also be one or more standard deviations (20 points) between the I.Q. score on the WAIS-R (Full Scale, Verbal Scale or Performance Scale), and the standard scores of the achievement portion of a standardized test, such as the Woodcock-Johnson Psycho-Educational Battery (WJPEB), or other appropriate individual achievement tests. If one or more standard deviations are not obtained between the I.Q. score and the standard scores on the achievement test are not obtained, LD documentation may be made based upon wide disparity on the Achievement/Aptitude profile on the WJPEB, in the Reading, Mathematics, and/or Written Language areas consisting of a moderate deficit (MD) or a severe deficit (SD) range. Cluster score differences are as follows:

Below Average	-6 to -16
Moderate Deficit	-16 to -25
Severe Deficit	-26 to -25

For testing college students, scores in the severe deficit range are most reliable.

According to Stewart, there are instances when a case does not conform to the criteria as stated above. When this occurs, a decision to override can be made when observational data and partial evidence can satisfy the consensus of the diagnostic team as to the presence of a learning disability. The following factors, either individually or collectively, can be supportive of a diagnosis

of a learning disability:

1. Wide disparity or scatter of scores, inter-test and intra-test, on the WAIS-R and/or on the WJPEB: especially when definite "groups" can be seen as areas of strength of areas of conflict.
2. Uncommon errors on informal written exercises, especially when the errors are inconsistent with the person's given abilities and when the errors are thought to be indicative of a learning disability and not of low aptitude in that area.
3. A diagnosis of severe reading difficulties in critical areas such as recognition, comprehension and/or fluency.
4. Previous diagnosis as having a learning disability by a multidisciplinary team in elementary or secondary school and/or having received services for the learning disability.
5. The following factors, which can be gleaned from the case history, can be supportive of a diagnosis of a learning disability:
 - a. Family members(s) that have a learning disability
 - b. Allergies and medications used
 - c. Illnesses, high fever, concussion, seizures, unconsciousness, etc.
 - d. Birth traumas or complications
 - e. History as a "hyperactive" child and medications used
 - f. Delayed or abnormal development of speech, language, motor skills, or social skills
 - g. Visual and/or auditory perception problem as opposed to acuity.

(A. Stewart, personal communication, February, 1989).

The assessment criteria recommended in this LD program model is similar to that used by the North Carolina Public Schools and maintains the intent of PL 94-142.

Individual Education Program The learning disabilities

program should provide each of its students with an individual education program (IEP). Mangrum and Strichart (1988) defines the major purpose of the IEP as to specify the services to be provided to the LD student to increase his or her chances of success in college (see Appendix A). It also provides a method by which to monitor the student's growth in basic skills and success in academics. The IEP is not a requirement of Section 504 for post-secondary institutions but is required of public education through PL 94-142.

The IEP should be prepared by the LD committee. It should be based on a combination of information obtained from public school records, admissions data, the psycho-educational evaluation, interviews and observations of the LD student.

Mangrum and Strichart (1988) recommended the following components for the post-secondary LD student's IEP:

1. Academic and learning strengths
2. Academic and learning deficits
3. Effective learning strategies to be used by the student
4. Effective teaching strategies to be used with the student
5. Remediation (listed by individual goal, including objectives and method of evaluation for each applicable school term)
6. Space to list recommendations for tutoring, counseling, auxiliary aids, and/or special courses and related services.

Space is provided at the bottom of the IEP for all LD Committee members including the student, to sign. This is to document members' participation in the IEP and would serve as a contract guaranteeing the recommended services to the student.

The IEP should be reviewed by the LD committee a minimum of once each school term to assess the student's progress in meeting the specified goals and objectives and to integrate new ones as appropriate.

Program Modifications and Auxiliary Aids Course requirements for students with learning disabilities should not be weakened versions of standard course requirements. The expectations for acquisition of knowledge and skills should be the same for all students. Post-secondary instructors can use numerous program modifications which can be of benefit to all students, especially the LD student, and not affect course content or expectations for the student. The program modifications offered by Mangrum and Strichart (1988), are in keeping with the strategies used in the Project HELDS Model (Lopez & Clyde Snyder, 1983; Mick, 1985). These modifications include the following:

1. Give assignments orally and in written form.
2. Provide study questions in the same format as those that will be on the test.
3. Identify the most important sections within long reading assignments.
4. Speak directly to students, using natural expressions to convey meaning.
5. Have students repeat what they have heard as a

check for understanding.

6. Use everyday life analogies to make abstract concepts more understandable.
7. Provide demonstrations in addition to verbal explanations.
8. Describe diagrams, charts, graphs, and other visual aids.
9. Be explicit about the strengths and weaknesses of a student's work.
10. Explain procedures in a step-by-step manner.
11. Allow time for students to work in small groups to practice, solve problems, and review work.
12. Permit the use of calculators, scratch paper, and dictionaries during tests.
13. Announce reading assignments well in advance to help students who must rely on taped materials.
14. Allow students to take tests in alternative ways.
15. Assist students in obtaining accurate and complete course notes.
16. Permit students to tape record class lectures.

See Appendix A for a comprehensive list of auxiliary aids for LD college students.

Program Staff, As Mangrum and Strichart (1988) point out, the success of a post-secondary LD program hinges upon the program director. Qualifications of the LD program director should include a thorough knowledge of learning disabilities,

administrative experience and strong interpersonal skills. A list of LD program director responsibilities is provided in this study's review of literature. This author suggests these additional activities for the LD program director:

1. Recruitment of students with documented learning disabilities
2. Assisting in the admission process of LD applicants (in institutions not operating under an open admissions policy)
3. Conduct the mass screening of all new admissions
4. Follow-up referrals on all students who, through mass screening, are suspected of having a learning disability
5. Psycho-educational assessment of LD students and suspected LD students (larger programs may require additional staff to carry out the assessment process)
6. Follow-up of LD students progress and supervision of creating and implementing the students' IEP's.

Other recommended staff include: an educational diagnostician, psychologist, instructors trained to remediate LD students, counselors, tutors, and support staff to maintain records and the program's auxiliary aids.

Summary

The LD student's transition from public to post-secondary education is difficult. Consistency is important to the LD student's success (Dalke & Schmitt, 1987). There are a number of LD program models being used by post-secondary institutions. These

models meet the requirements of Section 504, yet are inconsistent with public education LD programs and the spirit of PL 94-142.

The LD program model presented in this study combines the services of current post-secondary models. In addition, it introduces services to the post-secondary setting (i.e. mass screening, psycho-educational assessment, and IEP's) which are consistent with public education LD programs).

Implementing the proposed program model in the N.C.C.C.S. would provide one means by which LD students can make a smooth transition from secondary to post-secondary educational achievement. This consistent, comprehensive model which meets both the legal requirements for serving the handicapped and the system's mission for providing educational opportunities for all adult citizens of North Carolina.

Suggestions for Further Study

1. As stated in previous chapters, there have been few court decisions to establish precedents to guide post-secondary institutions' compliance with Section 504. This is not to say that litigation is not currently pending in a number of courts throughout America. It is because of the constant flow of court decisions that an annual review of court decisions regarding Section 504 and its implications for post-secondary education is recommended.
2. Other handicapping conditions in addition to learning disabilities should be researched for post-secondary institutional compliance with Section 504.

3. The N.C.C.C.S. has a policy of open admissions. An assessment of post-secondary institutions' compliance with Section 504 should be conducted for institutions not operating under an open admissions system.
4. As pointed out by Mangrum and Strichart (1988), post-secondary LD programs have not been in existence long enough to conduct valid longitudinal student success research. This is a recommended area for future study, as positive findings would lend credence to the establishment of new post-secondary LD programs.
5. A process for evaluating the effectiveness of the LD program model, which is currently in place at McDowell Technical Community College, should be formulated and conducted annually.

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APPENDIX A

Recommended Support Services and Auxiliary Aids

A full-time or part-time coordinator of services for learning disabled students.

Preliminary diagnostic services in order to determine student ability to work at the college level.

Pre-admission advisement.

Short-term and long-term student counseling.

Counseling opportunities for parents of learning disabled students.

Access to personal, academic, social, and career counseling.

Study skills course work.

Remedial and basic skills classes.

Feedback systems from professors to coordinators of services for learning disabled students.

Termination services (counseling, testing, etc.) for those learning disabled students who leave college.

Access to required course syllabi.

Access to tutors, readers, and notetakers.

Access to typists.

Computers for student use.

Taped textbooks and recorded lectures.

Access to study-groups.

Instruction in library use.

Library retrieval assistance.

Video-taped lectures of various required courses.

Campus orientation programs.

Information regarding eligibility for learning disability services programs.

Modified college admissions procedures.

Visits to college classrooms in advance of enrolling in the college.

Untimed exams.

Varied testing options.

Advanced acquisition of required reading assignments.

Advised academic program planning to meet the unique needs of the learning disabled population.

Surcharges added to tuition costs for learning disabled student services.

Easy access to the coordinator of services for learning disabled students.

Full-time or part-time educators to assist with the needs of the learning disabled population.

Trained educators with advanced degrees or peer tutors for learning disability assistance.

Guidance in structuring the student workday.

Guidance in student college living.

Student groups that facilitate making friends.

Access to early registration procedures.

Career and vocational opportunities.

Assistance with class scheduling.

Information regarding the rights of learning disabled students.

Listings of available college services for learning disabled students.

Information regarding scholarships for learning disabled students (Michael, 1987, pp. 486-487).

APPENDIX B

No. ____

SURVEY INSTRUMENT
SPECIAL SERVICES PROVIDED TO LEARNING DISABLED STUDENTS

SECTION I

Circle one

- Yes No 1. Does the institution currently operate using any federal funds or grants excluding federal student financial aid?

SECTION II

Circle one

- Yes No 1. Does the institution have any students enrolled with documented learning disabilities?
2. If yes, how many? _____
3. If the institution does have students enrolled with documented learning disabilities, were they documented learning disabled by:
- Yes No a. an evaluation in the public schools?
- Yes No b. an evaluation on your campus?
- Yes No c. a private evaluation?
- Yes No d. a voc-rehab evaluation
- Yes No 4. Does the institution conduct mass educational screenings of all its students? (e.g. placement tests)

Please see other side

SECTION III

Circle one

Which of the following services does your institution provide at no cost to its students having documented learning disabilities:

- | | | | |
|-----|----|-----|---|
| Yes | No | 1. | Individual Psycho-Educational Evaluations |
| Yes | No | 2. | Tutoring |
| Yes | No | 3. | Special Counseling |
| Yes | No | 4. | Alternative Oral Testing |
| Yes | No | 5. | Alternative Un-Timed Testing |
| Yes | No | 6. | Note Takers |
| Yes | No | 7. | Textbooks on Tape |
| Yes | No | 8. | Access to Typewriters and Word Processors |
| Yes | No | 9. | Hand-Held Calculators |
| Yes | No | 10. | Special Orientation |

OTHER COMMENTS:

Please return to: James R. Robinson
P.O. Box 1326
Marion, NC 28752

If you have questions regarding the survey, please call
(704) 652-6021, extension 33.

If at all possible, please return in the enclosed self-addressed,
stamped envelope by February 10, 1989.

Check here _____ if you wish to receive a copy of the results of this
survey.

APPENDIX C
SURVEY COVER LETTER

January 27, 1989

Dear

I am a doctoral student majoring in Educational Administration at the University of North Carolina, Greensboro. As part of my dissertation research, I am conducting a survey of the 58 institutions of the North Carolina Community College System.

Would you please take a moment to complete the enclosed questionnaire and return it to me in the envelope provided? As I am striving to reach an impending deadline, your speed in responding is greatly appreciated.

Thank you for your time and assistance.

Sincerely,

James R. Robinson

Enclosure

COVER LETTER ATTACHMENT

A Learning Disability is defined by the North Carolina Department of Education as:

an inclusive term used to denote various processing disorders presumed to be intrinsic to an individual (e.g. acquisition, organization, retrieval, or expression of information, effective problem solving behaviors). For the purpose of special education services a student classified as learning disabled is one who after receiving instructional intervention in the regular education setting has a substantial discrepancy between ability and achievement. The disability is manifested by substantial difficulties in the acquisition and use of skills in listening comprehension, oral expression, written expression, reading and/or mathematics. A learning disability may occur concomitantly with but is not the primary result of other handicapping conditions and/or environmental, cultural, and/or economic influences.

This is the definition used in this study.

APPENDIX D

Percent of N.C.C.C.S. Institutions Providing Special Services to LD Students

Service	%
Psycho-educational assessment	21%
Tutorial programs	93%
Special counseling	79%
Tests administered orally	59%
Tests administered with no time limits	59%
Notetakers	53%
Tape recorded textbooks	34%
Student access to typewriters and word processors	76%
Allowed use of hand-held calculators in class	31%
Special orientation for new LD students	33%

APPENDIX E

SERVICES PROVIDED BY INSTITUTIONS OF THE NORTH CAROLINA
COMMUNITY COLLEGE SYSTEM TO STUDENTS WITH
DOCUMENTED LEARNING DISABILITIES

	N.C.C.C.S. Insti- tution By Code	Psycho Educational Assessment	Tutoring	Special Counseling	Oral Testing	Un timed Testing	Notetakers	Textbooks on Tape	Typewriters Word Processors	Calculators	Special Orientation
01	X	X	X	X	X				X	X	
02			X	X	X	X		X	X		
03			X		X	X	X		X		
04			X	X	X	X	X		X		X
05	X		X	X	X	X	X	X	X		X
06			X	X	X	X	X	X	X	X	
07			X	X			X	X	X		X
08			X	X					X		X
09			X	X	X						
10	X		X	X	X				X		
11			X	X	X	X			X		X
12			X			X			X		
13			X	X	X	X	X		X	X	
14				X	X		X				
15			X	X			X	X	X	X	X
16			X	X	X	X	X	X	X	X	X
17	X		X	X	X	X	X	X	X	X	X
18			X	X	X	X	X	X	X	X	
19			X	X			X				
* 20											
21			X				X				
22	X		X	X	X	X	X		X		
23			X	X	X	X	X		X	X	X
24			X	X	X	X	X		X	X	
25			X						X		
26			X	X	X	X		X	X		
* 27											
28			X	X	X			X		X	
29			X	X		X			X		
30			X	X	X	X	X	X	X	X	X
31			X	X							

APPENDIX F
DEPARTMENT OF COMMUNITY COLLEGES
ANALYSIS OF FEDERAL FUNDS BUDGETED
1987-1988

ALAMANCE CC	215,529	SAMPSON CC	202,403
ANSON CC	166,308	SANDHILLS CC	88,452
ASHEVILLE-BUNCOMBE TCC	161,535	SOUTHEASTERN CC	214,002
BEAUFORT COUNTY CC	146,351	SOUTHWESTERN CC	169,574
BLADEN CC	91,505	STANLY CC	197,593
BLUE RIDGE CC	151,251	SURRY CC	162,826
BRUNSWICK	129,483	TRI COUNTY CC	98,525
CALDWELL CC & TI	226,778	VANCE-GRANVILLE CC	271,837
CAPE FEAR CC	286,488	WAKE TCC	486,478
CARTERET CC	202,658	WAYNE CC	326,173
CATAWBA VALLEY CC	128,070	WESTERN PIEDMONT CC	228,902
CENTRAL CAROLINA CC	272,888	WILKES CC	326,393
CENTRAL PIEDMONT CC	476,359	WILSON COUNTY TC	193,580
CLEVELAND CC	61,780		
COASTAL CAROLINA CC	258,293		
COLLEGE OF ALBEMARLE	182,828		
CRAVEN CC	145,246		
DAVIDSON COUNTY CC	174,245		
DURHAM TCC	306,458		
EDGECOMBE CC	230,635		
FAYETTEVILLE TCC	892,168		
FORSYTH TCC	276,886		
GASTON COLLEGE	181,884		
GUILFORD TCC	385,220		
HALIFAX CC	167,529		
HAYWOOD CC	183,557		
ISOTHERMAL CC	90,698		
JAMES SPRUNT CC	202,836		
JOHNSTON CC	250,240		
LENOIR CC	258,756		
MARTIN CC	193,300		
MAYLAND CC	196,183		
MCDOWELL TCC	108,261		
MITCHELL CC	88,247		
MONTGOMERY CC	36,958		
NASH CC	243,139		
PAMLICO CC	57,399		
PIEDMONT CC	113,161		
PITT CC	383,757		
RANDOLPH CC	159,388		
RICHMOND CC	289,521		
ROANOKE CHOWAN CC	251,712		
ROBESON CC	235,587		
ROCKINGHAM CC	78,817		
ROWAN-CABARRUS CC	155,832		